



When Were Clusters of Galaxies Formed and How Do They Evolve?

Clusters of galaxies provide a uniquely useful probe of Cosmology

- Clusters are “simple” objects that are fair samples of the universe - they reflect the underlying dark matter to baryon ratio
- The abundance and redshift distribution of clusters determine the geometry of the universe
- Merging clusters can be used to test dark matter models
- Cluster elemental abundance measurements provide a powerful “dust free” measure of the star formation history of the Universe

Constellation-X observations of clusters of galaxies are essential to understand structure, evolution, and mass content of the Universe

